



Science & Technology Facilities Council ISIS

Saffron Glove Box Operating Instructions

Muon Preparation lab (TS1)

This glove box provides an interior chamber for handling substances that are sensitive to oxygen and/or moisture. It is straightforward to use but it is very important to follow the procedures below to maintain the conditions inside the box. Please **remove all jewellery** from your hands and wrists before using the glovebox to avoid ripping the gloves. **Make an entry in the log book** before you start to use the glovebox.

If you require any assistance with this equipment please contact;

[Marek Jura on 7093 or 1677](#)

[Sarah Langham on 5721 or 1825](#)

Preparing the Ports for use

It is important to collect up all the items you will need to put in the box, think through what you going to do and what equipment you will need. Control units are on top of box labelled port purging (small and large).

- a) Large port – to open exterior door loosen central clamp with allen key and pull release button,
- b) Small port – to open exterior door loosen black knob and lift door from the right,
- c) Place all items inside port and close door firmly,
- d) Evacuate port by turning vac valve up and wait until pressure dial on outside of port reads -1.0 bar, then turn to off position,
- e) Purge port by turning gas valve up and wait until pressure returns to 0, then turn to off position,
- f) Repeat process two more times, leaving pressure at 0,
- g) Return all knobs to down/off position after use,
- h) DO NOT open interior doors until ports have been through process THREE times, this prevents interior of box becoming contaminated.

Preparing the Gloves for use

There are different size gloves available, please ask if you would like the gloves changed. Control unit for gloves is at top of box, labelled glove purging. Each glove has its own switch on control unit. Each glove has its own gas supply line but only purge one at a time.

- a) Evacuate using vac (turn to right) until glove shrinks into holder,
- b) Purge with gas (turn to left) until glove is fully inflated,
- c) Repeat process two more times,
- d) Evacuate some of the gas out to allow easier access to cover,
- e) Return all knobs to down/off position after use,
- f) DO NOT open covers until gloves have been through process THREE times, this prevents interior of box becoming contaminated.

Opening Gloves and Emptying Ports

Once the port(s) and gloves have been 'cleaned' it is alright to open interior doors.

- a) Insert hands into gloves,
- b) Remove covers by turning knobs anticlockwise,
- c) Small port – loosen black knob and lift door up from left hand side,
- d) Large port – loosen central clamp using allen key and pull release button,
- e) Doors will only open if pressure in port is zero,
- f) Remove all items from port.

Removing items from box

- a) Place all items to be removed into port,
- b) Close inside door and secure shut,
- c) Then simply open outside door and remove items from inside,
- d) Close door afterwards,
- e) DO NOT open both internal and external doors at the same time.

After use

- a) Ensure all port doors are closed, internal and external,
- b) Close all glove covers,
- c) Check all valves on purging controls are in Down/Off position,
- d) Check both ports are left at zero pressure.